

Appl. No. 10/728,489  
Response dated April 2, 2007  
Reply to Office Action of November 1, 2006

ACH2976US

**REMARKS**

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Claims 1 - 10 are in the case. All claims stand rejected.

**35 USC 103**

In this Final Office Action, the Examiner has re-stated his obviousness argument from the previous Office Action. The Applicants respectfully request reconsideration.

Clark discloses a process for the hydroconversion of a heavy hydrocarbon feed by using a first relatively small-pore highly active catalyst mixed with a second catalyst having a large macropore volume (Clark, Col 6, lines 7-10). As stated in Applicants' previous response, Clark's first catalyst can be functionally compared to the Applicant's catalyst II in claim 1 of the instant application. In both catalyst systems, this catalyst is meant to provide catalytic activity rather than to permit deposition of metals and asphaltenes. Clark's second catalyst can be functionally compared to the Applicant's catalyst I in claim 1 of the instant application. In both catalyst systems, this catalyst is meant to permit deposition of metals and asphaltenes. And, as stated by the Examiner, Clark does not disclose the limitation that 10% - 30% of the pore volume of catalyst I lie in pores having a diameter of at least 2000 Å, which according to Applicant's written description, if the percentage is too low, the asphaltene removal capacity will decrease, and if it is too high, the mechanical strength will decrease.

The Examiner argues that it would have been obvious to one having ordinary skill in the art to substitute Clark's second, large-macropore catalyst with the catalyst disclosed in Schindler. In response to Applicant's argument that there is no motivation to combine Schindler with Clark, the Examiner states, "the motivation is that the catalyst of Schindler has improved hydrotreating activity and improved catalyst life." In support of this argument, the Examiner cites *In re Fulton*, 391 F.3d 1195 (Fed. Cir. 2004) wherein the court emphasized that the proper inquiry is "whether there is something in the prior art as a *whole* (Examiner's emphasis) to suggest the *desirability*, and thus the obviousness, of making the combination." The Applicants submit that the Examiner reliance on *Fulton* in support of his argument is misplaced.

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In *Fulton*, the claim in question dealt with an improved shoe sole having, in addition to other limitations, hexagonal shaped projected surfaces oriented in a particular direction for increasing the resistance to slip on a contact surface. *Fulton* at 1196-1197. One prior art reference recited all of the limitations of the patentee's claim except for the hexagonal shaped projected surface. While not specifically mentioning hexagonal shaped projected surfaces, the reference suggested that "cylindrical polygon shaped projections other than those expressly described (square, rectangular or triangular) may be employed...for good traction." *Fulton* at 1199. Another prior art reference disclosed hexagonal shaped projected surfaces oriented in the same particular direction as in the patentee's claim. The patentee argued that the second prior art reference did not disclose that hexagonal shaped projected surfaces are preferred over other alternatives disclosed in the prior art. The court ruled, however, that the "case law does not require that a particular combination must be the preferred, or the most desirable, combination described in the prior art in order to provide motivation for the current invention." *Fulton* at 1200.

The holding in *Fulton* cannot be applied to the instant application. In *Fulton*, the patentee's claim and the prior art were all related to shaped projections on shoe soles. The functionality of such projections could only be related to traction. So, it is easy to see how the prior art in *Fulton* as a whole provided the requisite motivation to combine. To the contrary, such motivation cannot be found in the art cited by the Examiner (Clark and Schindler).

Claim 1 of the instant application recites among other limitations, a catalyst system comprising one catalyst whose function is to permit deposition of metals and asphaltenes (deposition catalyst), and a second catalyst whose function is to provide catalytic activity (activity catalyst). The Examiner has already agreed that Clark does not disclose Applicants' deposition catalyst. However, the Examiner suggests that one skilled in the art would be motivated to substitute the catalyst disclosed in Schindler for the deposition catalyst disclosed in Clark to arrive at the Applicants' invention because Schindler discloses that his catalyst has "improved hydrotreating activity and improved catalyst life." This simple statement has nothing to do with the functionality of neither Clark's nor Applicants' deposition catalyst whose function is to permit deposition of metals and asphaltenes. If Schindler provides any motivation at all, it would be to substitute Schindler's catalyst for Clark's or the Applicants' activity catalyst, whose function is to provide catalyst activity. Since such a combination would not comprise all of the limitations of

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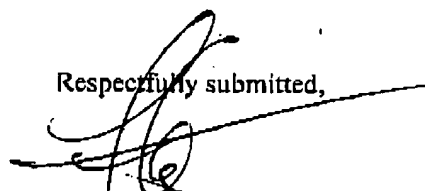
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Applicants' Claim 1, it cannot be used as a prima facie case for obviousness.

Without any motivation to combine Schindler with Clark, Applicant submits that claim 1 is in condition for allowance, as are all claims that depend on claim 1. Further, Applicant submits that claim 7, as well as any claim that depends on claim 7, is in condition for allowance for the same reason as outlined above.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. The Examiner is encouraged to contact Applicants' attorney should the Examiner wish to discuss this application further.

Respectfully submitted,



Frank C. Eymard  
Reg. No. 51,660  
Attorney for Applicants

Telephone No.: (225) 388-7750  
Facsimile No.: (225) 388-7239